FRONT PORCH PERSPECTIVE; Electricity planning ? local advisory meetings

By Stephen Somerville

Scanning through the various documents produced by the Independent Electricity System Operator (IESO), it seems that local electricity planning issues will slowly work their way back into the public consciousness in York Region and Aurora.

As you may recall from my last column, in 2015 the IESO was developing a twenty year plan to look at ways of ensuring a reliable supply of electricity for York Region.

According to an advertisement that appeared in another local paper at the time:

?An Integrated Regional Resource Plan (IRRP) is being further developed by the three electric utilities serving the region ? Newmarket-Tay Power Distribution Ltd., PowerStream Inc. and Hydro One Networks Inc. ? in conjunction with the IESO.?

According to the IESO website an IRRP has been released for our sub region:

?In the near-term, three transmission projects are recommended to address capacity and reliability needs; these projects are already under development by Hydro One and PowerStream. In the medium to long term, York Region's electricity system is expected to reach its capacity to supply growth in the early to mid-2020s based on current projections. If the growth materializes, there will be a need for additional new supply in the region. The Working Group will seek community input on possible solutions.?

For some Aurora residents, this could be a case or not of Groundhog Day.

We have seen this story played out back in 2004.

In 2004, many citizens of Aurora were furious about the possibility of upgrading the existing 115 kV transmission line to a 230 kV high voltage line that runs through town from Markham to Newmarket. The redevelopment would have meant taller towers with wider bases, with the end result being that the towers and transmission lines would have been closer to homes.

Residents were concerned, from a health and safety perspective, about the link between electric and magnetic fields (EMFs) to childhood leukemia, and they were also worried about the value of their homes.

In the end, the transmission line was not upgraded. The Ontario Energy Board (OEB) decision instructed that a transformer station, to reduce the high level voltage to a more manageable level, be constructed. The Holland Junction Transmission station in King Township was built.

However, by 2008 Northern York Region was continuing growing beyond the level at which the existing infrastructure could meet the standards for reliability.

In the end, the Northern York Region Working Group collectively identified the construction of a peaking plant as the preferred solution over enhanced transmission and an approximately 370 MW natural gas fired peaking (simple-cycle) generation was built in King in 2012.

Aurora had again sidestepped the political mine field of either having large scale generation built within its borders or a new transmission line running through town.

Fast forward to today.

From that same advertisement:

?A Local Advisory Committee (LAC) is being established to provide advice on the development of the plan's longer-term options, including innovative solutions that will address the region's electricity needs. They will also advise on how to best engage the broader community in the discussion.

?The LAC ?comprises up to eighteen members, representing municipalities, First Nation and Metis communities, consumers and citizens, the business community, and environmental and conservation groups.?

The LAC has been continuing to meet, and although I have not been able to attend the various meetings as a public observer, the published documents provide lots of interesting information.

The document from the September 21, 2016 LAC meeting provides some key takeaways.

First, on slide twelve, it shows continued growth forecast in Vaughan and Northern York Region over the next twenty years. On the same slide a chart shows approximately 380 MW of incremental growth in the 2015 to 2030 timeframe.

Secondly, on slide 13, ?Even with on-going conservation efforts, all three main sources supplying Vaughan and Northern York Region will reach their capacity by mid-2020s.

Third, one of the potential System Reinforcement Options (i.e. transmission and/or distribution lines) is through parts of Aurora, Richmond Hill and Whitchurch-Stouffville.

The notes from the recently held January 24 meeting of the LAC are also interesting.

One of the key takeaways from this document is contained on page three: ?Better understanding to what extent can distributed energy resources (DER) be a cost-effective and reliable option to defer the longer-term needs in Northern York Region/Vaughan. Slide 27 includes examples of DERs: small gas-fired generators, micro-grids, energy storage, Combined Heat and Power for business, residential Demand response and renewable generation like solar.
As it states on page 29: ?As an alternative to transmission and distribution solutions, DER's can provide a local source of supply for communities.?
But there is a lot of work to do to see if some or all of these potential DERs can work. Otherwise, either new or enhanced transmission / distribution line(s) running through Aurora may be in our future at some point.

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